

Proposed Tri-Party Agreement Changes for Central Plateau Cleanup Work
and Mixed Low-Level Waste and Transuranic Mixed Waste

Seattle Public Meeting
June 24, 2010
Meeting Notes

Gerry Pollet welcomed participants and introduced the concept of the dialogue based public meeting and the process for selecting topics.

Mike McCormick from KEXP public television introduced himself and noted that he was filming the meeting.

Todd Martin introduced himself and reviewed the scope of the change packages and the effort at a dialogue based public meeting with the goal of increasing understanding between the agencies and the public. Todd pointed out the availability of public comment sheets and the availability of meeting notes for those who leave their email addresses. Todd said the four issues that would be addressed at this meeting would be Central Plateau Strategy, MLLW & TRUM Cleanup, Pre-70's waste, and agency responsibility for drafting ROD's

Matt McCormick (Department of Energy -Richland Operations Office) reviewed current cleanup successes including: groundwater pump and treat capability of 50 million gallons per month, increasing the pace of soil and waste remediation near the river and demolishing old facilities on the Central Plateau ((10,000 tons of soil a day being disposed at Environmental Restoration Disposal Facility mostly from the River Corridor cleanup). Matt noted that this change package will help position the agencies to execute cleanup in the Central Plateau as they have in the River Corridor.

Matt continued by talking about the evolving TPA focus on a geographical approach to the Central Plateau. The Central Plateau has been divided into three areas: inner, outer & groundwater. The overall goal is to remediate these three areas to be protective of human health and the environment and prevent contamination from reaching groundwater. The inner area will represent the final footprint of Hanford site and it includes ERDF and other burial grounds as well as the navy reactor cores. Also made CERCLA decisions on U Canyon outer area being cleaned up similar to the River Corridor where wastes are retrieved and disposed in ERDF. The goals for groundwater remediation are the same all over the site – drinking water standards and, in some cases, lower than drinking water standards to protect aquatic life. Lastly, Matt talked about a new operable unit focused on the deep vadose zone where contaminants are not amenable to regular surface remedies.

Question: how far below the surface is the water table?

Answer: Approximately 250 feet in the Central Plateau.

John Price (Washington State Department of Ecology) said the State of Washington has been involved in the cleanup since 1986 and believes there are another 42 years of cleanup remaining to be completed. John said \$2 billion per year is being spent on cleanup.

Question: Does the \$2 billion include the vit plant?

Answer: yes, the total cleanup estimate is approximately \$100 billion.

John referred to a waste graphic and said wastes are treated differently based on when they were buried (pre-1970). John talked about schedules for treating, Mixed Low Level Waste. While there has been lots of progress, the remaining waste is the most difficult to dispose as it is in large boxes. The TRU inventory has increased because much has been retrieved and placed into storage. The proposed change would alter the schedule for finishing this work by requiring shipping of all the TRU by 2035. The old milestones did not include a date for DOE to rid Hanford of all of this waste. Ecology's goal is get all the waste off the Hanford site.

Heart of America Northwest concerns: There is a disconnect between New Mexico's current WIPP closure date of 2030 and the proposed 2035 deadline to ship Hanford TRU. This is not reassuring.

A more short-term concern about TRU is that agencies are proposing 2012 & 2014 as target milestones instead of setting enforceable milestones to ensure all the waste is shipped per TPA. The lack of enforceable milestones do not provide an obligation for DOE to request funding to meet the new schedule. Further, it leaves Ecology without enforceability if DOE fails to meet the milestones. The delays are disturbing also due to the potential for barrels to corrode and leach waste. Since WIPP is the only repository, we need enforceable schedules for when the waste will be retrieved. Lastly, DOE is planning to ship greater than class c waste to Hanford which might take up valuable WIPP space.

Question: What is class c waste?

Answer: Matt said there is a draft EIS to be released this summer looking at Hanford and other options for disposal. Gerry added that Class C waste is very highly radioactive and, in some cases, can be as dangerous as high level waste. Gerry also outlined the alternative disposal sites being considered in the EIS as the Nevada Test Site, Oak Ridge, Savannah River, WIPP, and a generic commercial site.

Question – 3000 cubic meters have been shipped to WIPP; how much TRU is ready to go to WIPP?

Answer: Matt said DOE is planning to ship 2000 cubic meters in 2010 and 2011. The bottleneck is preparing the waste for WIPP – repackaging, testing, certifying. Additionally, there are limited transportation services.

Question: Is WIPP first come first served?

Answer: No, DOE-HQ prioritizes based on state agreements, types of waste, etc. Idaho is at the front of the line but there will be plenty of space for Hanford

Question: Do TRU estimates account for unlined trenches?

Answer: No, the estimates do not include pre-70's TRU.

Question: What happens to the waste that comes out of the vitrification plant?

Answer: John said the Low Activity Waste will be disposed at Hanford, and the HLW is to be disposed in a deep geologic repository.

Question: Will the WIPP RCRA permit allow acceptance of waste until 2030 or will they close earlier?

Answer: Matt said the permit anticipates receiving the last waste in 2030 and then a 5 year closure process.

Question: Could the date be pushed one way or the other? Is it wise to anticipate one closure date when there's a real possibility it could close earlier or later?

Answer: Matt said the limit was set on volume & curies and that is what is in the permit. The agencies acknowledge the disconnect and are looking at planning assumptions and considering moving the date to 2030. John said this is a back-stop date, Ecology works with DOE on a continuing basis to talk about this waste, track this work continually to identify bottlenecks or areas where shipping can be accelerated.

Question: Is there back up plan if WIPP reaches capacity before Hanford waste gets there?

Answer: Matt said there is no back-up plan but there's plenty of space and doesn't anticipate that as an issue.

Question: Is there public data showing how volumes are going to WIPP? So we can see how sites are competing?

Answer: Matt said the information is on the WIPP website. Some projections go beyond 2030, like Los Alamos and weapons sites.

Question: A big concern is that we've lost Yucca Mountain. Are there backup plans?

Answer: John said the President's Blue Ribbon Commission will be at Hanford July 14 & 15 and the State will offer an opinion at that point.

Question: As waste is being retrieved & stored, if WIPP shuts down, what happens to the waste? Why isn't Washington in front of Idaho in priority?

Answer: Dennis said Idaho was ready to ship and they have settlement agreement between DOE and the state for shipping all waste by 2018. Hanford has actually sent some waste to Idaho for preparation. The pinch point is the availability of shipping casks. Idaho will be ramping down in 2015 and other sites can ramp up. Matt added that Hanford has 15,000 cubic meters and Idaho has 70,000 cubic meters (mostly from Rocky)

Question: Why aren't the milestones enforceable? There is no obligation for DOE or Congress to request budget and Washington and EPA have no recourse. Why isn't the state asking for a binding schedule?

Answer: John said Ecology is trying to focus on the overall goal—getting all the waste off the site by a certain date – which Ecology thinks is an improvement over what we have now. Ecology didn't think shipping in 3 years was big contribution to the overall goal so they allowed target dates. Ecology wants

DOE to maintain technical capabilities and trained workforce but is concerned about budget and thinks 2012 is \$450 million short. Gerry responded that the disconnect is Ecology wants DOE to ask for the money, but Ecology knows DOE does not have any obligation to do that. Also, this is for retrieval, not shipping, and target is less than current schedule for retrieval and treating. John answered the near term goal is relaxed but that Ecology got commitments for small contact-handled TRU containers out by 2017 and shipped by 2018 and that's a date we didn't have before. Ecology had to give something up to get something and they believe they have got more important things and the State is happy with the trade-off.

Matt introduced the topic of pre-1970 waste. The agencies understand there is a lot of concern about this waste. He said during production there was incentive to reduce the amount of plutonium in the waste because it was expensive, sites had to recycle and recover plutonium. The SW-2 operable unit is part of this change package and the agencies will be going thru the CERCLA process to determine remedy. They are in the investigation phase right now for those burial grounds and haven't seen GW contamination yet.

Matt said the agencies will hold a workshop in the late summer/early fall to talk about the burial grounds and what we still need to look at to determine remedy. The milestones require submittal of the RI/FS work plan in 2011 and then public dialogue as remedies are considered. In 2015 the proposed plan will be sent to Ecology.

Dennis said the other part of pre-70's TRU is liquid wastes from PFP and they are almost ready to issue a Proposed Plan in the next six months picking remedy to deal with 6 PFP sites.

Heart of America Northwest perspective: This waste is composed of 43 miles of unlined soil trenches plus liquid waste discharges. DOE would not let Ecology to disclose the details in permit. Atomic Energy Commission changed the rules in 1970 because this waste has 24,000 year half life and doesn't belong in shallow landfill or unlined trenches. It is spreading. The tank closure EIS says 1000 years from now plutonium level reaching the shoreline will be 300 times drinking water standard. The only way to clean up is investigate and commit to digging up, treating & disposing and removing chemical wastes. Why was Idaho able to get settlement agreement but Washington can't get the same for Hanford? Why can't the TPA include milestones for pre-70's TRU? The public maintains this fight because there isn't one standard in the TPA for all these units.

Dennis responded that Idaho is not removing all of the TRU.

Question: Has there been best/worst case assessments of what's in these waste sites?

Answer: Matt said yes, some data has been collected showing how much plutonium is in the soil and DOE has estimates for plutonium in the burial grounds. There is about 600,000 cubic meters of soil waste there with some plutonium. Matt added that the closure EIS shows no movement of plutonium in the vadose zone in the Central Plateau. Appendix U talks about a reverse well in 200 East where

plutonium was injected to the groundwater. Also, the plutonium reaching the river is from trench in the 300 Area.

Question: There is still a lot of characterization to be completed for pre-1970's so there may be lots of surprises. At West Valley plutonium traveled a lot farther than anticipated because of organics. The big issue is knowing what's there and that is what should drive cleanup. The old assumption was contamination would never reach groundwater but now we know the deep vadose zone is impacted by tank waste— sometimes we just don't know and have to take that into account.

Dennis said the pre-70's TRU decisions are the hardest ones he has faced. From a technical perspective he is comfortable with the chemistry, comfortable it'll stay in the soil, but we're shipping a lot of materials to WIPP because someone decided it needed to go there – there's an artificial regulatory construct and from a public policy perspective, we have to choose. Dennis is pretty confident we're not digging up 43 miles of trenches, but he doesn't know what we'll choose.

Question: What about our ethical responsibilities to future generations? Shouldn't we clean up those trenches, even if it takes 100 years? We created Hanford, what is our responsibility to clean it up?

Answer: Dennis said 'cleanup' doesn't necessarily mean dig it up. We have to satisfy ourselves that we are protective in the long run.

Question: What do you hear from the side saying plutonium will move?

Answer: Dennis said he knows it moves in colloidal form, but have no knowledge in liquid waste sites that any was put there in colloidal form.

Dennis introduced the proposed changes to how Records of Decision will be drafted. For 20 years, the TPA has said regulatory agencies draft the RODs but, in practice, it is not efficient. Most of the ROD info comes from materials written by DOE and its contractors. The regulators struggle from a timeliness perspective to get RODs out, so DOE approached the regulators and we agreed it makes sense for DOE to draft RODs. The regulators retain enforceability if DOE produces a bad ROD. This way, a decision made within 6 months. If there's a disagreement, EPA is the final arbiter no matter what – that doesn't go away. Everywhere else in the nation lead agency writes the ROD. EPA thinks this is a good change.

Heart of America Northwest perspective: The primary concern is that it doesn't make sense to have DOE oversee its own activities. EPA shouldn't delegate that authority, it's required in the Administrative Procedures Act. The APA says the goal is to write a ROD with the full record in front of you to make the best decision – if DOE is sorting through the information you get what they feel is important. This seems like circumventing the goal of having the ultimate authority. When draft is written by DOE it isn't public until EPA signs it. The public should be allowed to see and comment on the draft before you sign off on it.

Dennis said all information that leads to the ROD is approved by the lead regulatory agency. We focus on the remedy selection portion of the ROD, where we can make them accountable. We will consider letting the public see draft ROD.

Question: How many people for each agency are working at Hanford? EPA about 10, Ecology about 60-70 but that's not all cleanup, includes air operating permit, have 40 non-cleanup units actively managing haz waste (e.g., vit plant we have 17 people including 2 full-time construction inspectors), DOE about 400 feds (275 RL/125 ORP), and about 10,000 contractors.

Question: I agree with points about authorship and EPA has challenges with staffing – what determines that EPA only has 10 people?

Answer: Dennis said 10 is a large number of EPA employees for a site – we only need 2 to make sure RODs are written correctly—the Project Manager and the Attorney. The Hanford EPA office has won 2 awards for best RODs in the nation (attribute that to our atty) – it's not quantity, it's quality.

Question: Why should the public be comfortable with this? DOE writes the Feasibility Study and the Proposed Plan, then it comes out to the public and the public usually feels that DOE doesn't listen at public meetings. The public expects the regulator to weigh our comments when we say, for example on Tank Waste EIS 'you missed all the trenches' – it's a data quality issue and you can't trust the polluter to weigh public comment. Why would we want to give up the authority to write decisions?

Answer: Dennis said we don't think we're giving up anything, we will write the final part of the ROD. Currently, it is common that what DOE proposes at first isn't what is chosen. All we're doing is making administrative changes; regulators still have ownership of the RODs.

Question: Logistically, is it possible for EPA to draft the RODs?

Answer: Dennis said in the past 20 years EPA has principal authorship but all material comes from DOE and contractor, we take that and put it in the ROD. EPA writes differently than DOE, we change words, now instead of doing it the first time we'll do it 60 days later. Dennis doesn't want project managers spending time doing administrative work. Dennis thinks this is a big win and no one's losing anything.

Question: We understand Dennis does not want to waste man hours. But to the public it looks like you're giving your job to DOE whose mission is not to protect the environment. What would the downside be to letting the public read what DOE gives you?

Answer: Matt said our mission is to protect the environment, DOE has legal responsibility and DOE's mission is to clean up the Hanford site. Dennis said his experience at other places is that EPA gets the final decision and his major concern is that multiple public comment rounds slows down the process.

Question: It is true DOE has the cleanup mission at Hanford but it also has additional missions at other sites and has conflicting missions. DOE needs to send waste to Hanford, has labs producing waste, we don't know the full scope, history has not been full disclosure from DOE about what's going on. GAO has been complaining for 25 years about DOE regulating themselves but Congress hasn't listened to that. What is wrong with an independent quality check and some independence in the process? We find gotchas all the time on reports and data quality.

Comment: Since all the money comes out of the federal budget it should be ok to take some employees from DOE and transfer to EPA—that's a good shift of funds to give us all comfort in the decisions

outstanding issues

Additional closing issues:

- Pre-70's TRU – no clear answers, still struggling to understand. A full-day workshop on pre-1970's TRU would be useful.
- How do my values about cleanup match up to what we're talking about?
- Some RCRA decisions being covered under CERCLA and what we lose from that when the State's not driving decisions anymore.
- Worried there's a focus on one radionuclide or contaminant without considering other COC's in remedy selection. We need to have a comprehensive picture.
- What would happen if we dug up all the pre-70's TRU? This should be addressed.

Comments on format

- good
- topics are not as black & white as others, good format for that.
- appreciate effort that went into this format
- need to do this not just when there's a comment period – we need to invest in the people who are interested in Hanford
- do this before the comment period
- wouldn't have worked as well if we'd had 40 people
- gives us a chance to acknowledge each other as equals all with the same goals
- hope the dialogue continues
- more of an interaction than one-way like discussions earlier
- not agency presentations

Flipcharts

- 2035 date doesn't connect with 2030 WIPP closure (which could also be uncertain).
- 2010/2014 'targets' should be legally enforceable (also will drive funding) and leaves state without leverage.
- Barrels corroding and technical challenges.
- Greater than Class C waste shipments make Hanford situation worse. Hanford option in EIS.
- What is bottleneck in getting waste to WIPP? Getting it ready.
- Where does WTP waste go? LAW to Hanford, HLW to deep repository.
- Concern about WTP backup.
- Why does Idaho have priority? They are ready and have a settlement agreement.
- Not ok to leave pre-1970 waste in the soil.
- Worst case evaluation of how much Plutonium in the soil?

- Still need more characterization of Plutonium may be oils that drive it. West Valley experience where Pu moved. Knowing what is there should drive cleanup.
- Unlikely remedy will include digging up 43 miles of trenches.
- Ethical responsibility for cleanup.
- Does not make sense to have DOE oversee itself by drafting RODs
- APA requirements are that EPA drafts ROD as lead agency with entire record considered.
- Allow public review period prior to ROD.
- 10 staff at EPA, 70 at Ecology, DOE feds 400, contractors 10,000. What determines EPA numbers? EPA budget.
- Why should public feel comfortable with DOE drafting RODs? Big things get missed (such as chemicals in TCWM EIS).
- Independent QA check and independence in the process.
- Give EPA more money.
- Good format
- Pre-1970 strategy is needed.
- How do values get incorporated and different types of values get incorporated into decision making?
- What is the meaning of changing some decisions from RCRA to CERCLA?
- Would be good to do this when there isn't a public comment period.
- May be too much emphasis on individual contaminants as opposed to all the COCs.